

PATENT SPECIFICATION

(11) 1 221 924

DRAWINGS ATTACHED

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(54) IMPROVEMENTS IN OR RELATING TO SCAFFOLDING

(71) I, LEONARD JOHN BLACKBURN, a British subject, of Fagley Cottage, Fagley Road, Bradford 2, in the County of York, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to scaffolding and particularly to scaffolding of the type known as suspended scaffolding.

The chief object of the present invention is to provide a new method of construction of suspended scaffolding which will be suitable for use on towers such as cooling towers, chimneys, buildings, dams and which will be cheap and easy to erect and which will not set up undue stresses or uneven loads on the tower.

According to the invention there is provided suspended scaffolding comprising a plurality of platforms or cradles which are suspended from a structure so as to extend around an internal or external periphery of the structure by flexible suspension members, drive means connected to said suspension members to enable the platforms or cradles to be raised or lowered relative to the structure, connecting bars connecting the cradles or platforms end to end, said connecting bars being capable of being lengthened or contracted to enable the effective length of the scaffolding to be varied and the scaffolding to follow the contour of the structure as the scaffolding is raised and lowered thereon or therein.

The length of the connecting bars may be varied by means of a screw arrangement, hydraulic device or electrical device.

Detachable walking boards may also connect adjacent platforms or cradles.

In order that the present invention may be fully and clearly comprehended, the same will now be described with reference to the accompanying drawings, in which:—

Figure 1 is a part plan view showing varying positions of the scaffolding on a circular cooling tower;

Figure 2 is a diagrammatic side elevation

[Price 5s. 0d. (25p)]

of Figure 1; with the connecting bars and boards omitted.

Figure 3 is an end elevation of one of the platforms or cradles.

Referring to the drawings, the suspended scaffolding comprises a plurality of platforms or cradles 1 arranged to be suspended from the top 2 of the tower 3 on the face of which work is to be done, by means of ropes 4 so as to be capable of being winched up and down by means of any suitable drive means such as an electric capstan (not shown).

The platforms or cradles 1 are of tubular construction and of rectangular form having sockets 5 at each end. Between each platform or cradle and secured in the sockets is an extensible or contractable connecting bar indicated at 6 Figure 1 bolted or pegged to the platforms or cradles, 1. In this way a composite platform may be constructed which extends around internal or external periphery of the tower. Suitable runners, wheel or fixed members may be mounted on the platform or cradle to contact the wall of the tower and so facilitate raising and lowering of the platform.

In order to deal with the variations in diameter of a cooling tower, sections of the composite platform can be removed or added.

The completed scaffold will encircle the tower, internal or external periphery, in one plane.

The platforms or cradles may also be secured together by connecting boards e.g. walking boards attached to adjacent cradles.

The width of the platforms or cradles may vary from between 20 inches to 6 feet.

As an alternative to the electric capstan previously mentioned, there may be employed for the raising or lowering of the cradles 1 'TIRFOR' (R.T.M.) manually operable equipment, hydraulic or pneumatic means, or a petrol or diesel engine. Or there may be employed other forms of electrical equipment.

The connecting bars are capable of being lengthened or shortened by screw bolt

arrangement (not shown) or by hydraulic or electrical devices, these latter two devices being particularly suitable for carrying out work on the inside of a cooling tower.

- 5 Thus, to adjust the scaffolding to the structure sectional shape, the connecting bars and boards, or appropriate ones thereof, are loosened, the extensible means actuated to increase or decrease the effective length of the scaffolding and the loose bars and boards again retightened.

- 10 As shown in Figure 3 the ends of the cradles are open to allow easy passage from one cradle to another when the scaffolding is in position and the cradles joined together end to end as described.

- 15 Finally, the eyes of ropes 4 may alternatively be secured to movable members such as carriages or bogies suitably mounted for traverse around the tower upper surface. Hence the suspended scaffold may be moved around the structure.

WHAT WE CLAIM IS:—

- 25 1. Suspended scaffolding comprising a plurality of platforms or cradles which are suspended from a structure so as to extend around an internal or external periphery of the structure by flexible suspension members, drive means connected to such sus-

pension members to enable the platforms or cradles to be raised or lowered relative to the structure, connecting bars connecting the cradles or platforms end to end, said connecting bars being capable of being lengthened or contracted to enable the effective length of the scaffolding to be varied and the scaffolding to follow the contour of the structure as the scaffolding is raised and lowered thereon or therein.

2. Suspended scaffolding according to Claim 1 the length of said connecting bars is varied by means of a screw arrangement, hydraulic device or electrical device.

3. Suspended scaffolding according to Claim 2 wherein detachable walking boards connect adjacent platforms or cradles.

4. Suspended scaffolding according to any of claims 1 to 3, wherein the drive means is a manually operable drive device or a power operated device.

5. Suspended scaffolding substantially as hereinbefore described with reference to the accompanying drawings.

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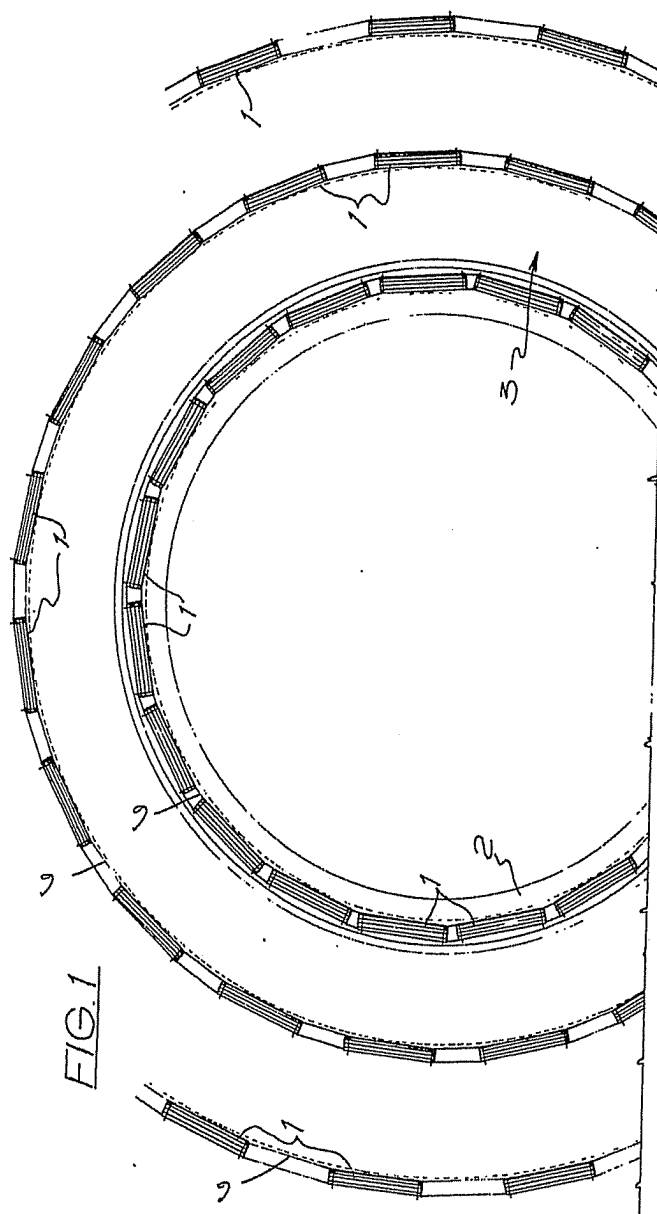
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COMPLETE SPECIFICATION

3 SHEETS

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Sheet 1



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Sheet 2

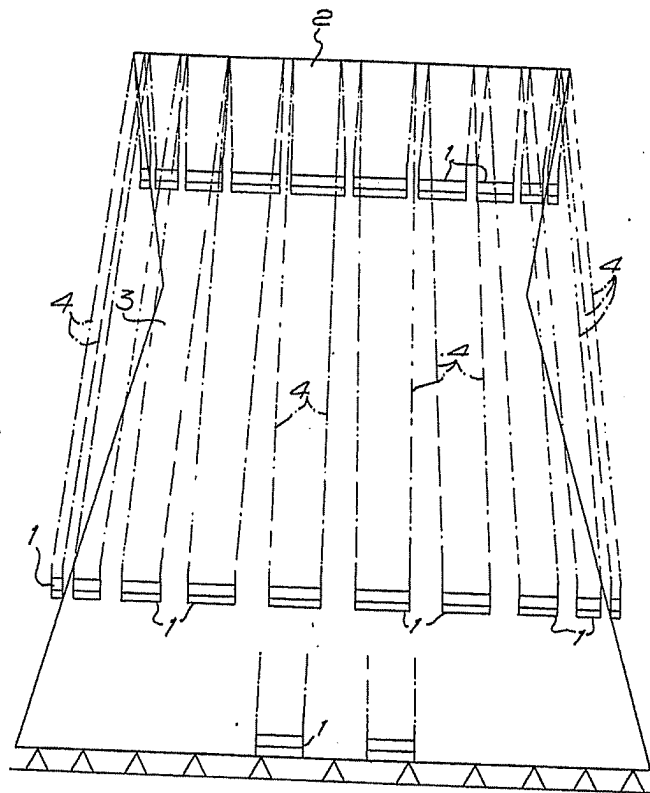


FIG 2

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COMPLETE SPECIFICATION

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Sheet 3

FIG. 3

